Marketing of Family Planning and Infant Health Care Programmes in Rural Areas:

A Study with Reference to Dakshina Kannada District

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INTRODUCTION

The wealth of a country depends on two factors, namely, (1) the 'gifts of nature' including the soil, the climate, the mineral resources, etc., and (2) the 'human factor' that is, the quantity and quality of manpower or working population (Madan, 1995). Even with the best natural resources a country will make a poor show in the production of wealth if the people are lacking in the ability and strength to make the best use of the resources at their disposal. Thus, of all the resources 'manpower' is the best resource. It is the most precious and productive resource. The study of human resources is vital from the point of economic welfare. It is particularly important because human beings are not only instruments of production but also ends in themselves (Datt and Sundaram, 2004). However, human beings considered to be the best resources may prove to be a curse if one finds a non-optimal growth in their numbers. An abnormal expansion in the demographic structure generates numerous problems. The excessive growth in population does not affect the stability of the national economy alone; it disturbs the stability of the entire body politic. It poses a colossal threat to our social structure. In our fight against poverty, disease, hunger, malnutrition and unemployment, checking the rapid growth of population is as important as raising production in farms and factories and provision of social services (Goel, 1980). On the positive side, the benefits of a young population one can expect are high levels of productivity and lower levels of dependency. On the other hand, youth could be a dangerous liability, because unless the population is healthy it will pull back development. Our vast human resource can be an asset only if the people are literate, healthy and prosperous.

World Population and India

The world population was 2.52 billion in the year 1950 which increased to 6.08 billion in 2010 and is likely to reach 7 billion in October 2011 and 8.3 billion by the year 2030 if the present rate of increase continues unchecked. While the population size will remain almost stationary in the more developed world during the period 2000 to 2030 around 1.2 billion, it is likely to grow from 4.87 billion to 7.1 billion during the same period in the less developed regions. Therefore, most of the growth in population size is going to occur in less developed countries (UN 2001) with its concomitant consequences. If it maintains its current trajectory, indisputably the number could reach nine billion by 2042. This will be 30 times as many human beings on earth as there were in 1000 B.C. As per the projection, India is going to

be the most populated country of the world by the year 2050. It exhibits the rate of growth at 1.6 per cent. Population increased more than 181 million or 17.6%, from 1.03 billion to 1.21 billion between 2001 and 2011(Economic Times, 2011). It is beyond any doubt that the wealth of a country is judged by the quality of its people and not by its number.

It is against this background that economists, social scientists, environmentalists, academics and others have been found opposing a non-optimal increase in population. The fact remains that India is a rich country in terms of human resources but the basic question is "are they truly resourceful?" In the fitness of things, 'human development' should always precede 'human resource development' in the total well-being of any nation. However, illiteracy, ignorance and indigence are responsible for high population growth. The traditional beliefs on family and number of children are still strong particularly in rural areas. A large family is not treated as burden, rather an asset and a source of security in old age. The myths about a male child still persist. Consequently, all our national developmental efforts will not be non-productive but also counter-productive unless one controls the unabated growth of Indian population, particularly in rural areas and thereafter, promote their well-being by implementing 'strategic human development policies, programmes and interventions' based on ideological underpinnings and a holistic context. In this context, Indian family planning and infant health programmes call for evidence-based and research-informed practices with a view to reaping the benefits of such demographic interventions.

Infant Health, Nutrition and Population

India is the home of the largest child population in the world. Survival of the child is dependent on maternal health and nutrition status, which, in turn, is determined by factors such as age of marriage, fertility behaviours, use of ante-natal and post-natal care and medical attention at the time of delivery. These are influenced by socio-economic determinants such as level of education, nature of occupation, access to health care, environmental sanitation and hygiene and pollution (Bose, 2004). Better child survival strategies and lower infant and child mortality play a key role in stabilising population size and improving the health of rural women (Prasad, 2006). Infant and child mortality rates, being the key indicators, are particularly disturbing. According to Sen (2003), some of the issues of concern related to infant and child health are listed below:

- One child in every 11 dies during the first 5 years of life.
- The number of child deaths annually is 2.5 million. Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh accounts for over half of all child deaths.
- Half the country's children are malnourished.
- In states like Bihar and Orissa, up to 60 per cent of children fall in the category of low nutrition, whereas in Punjab and Kerala, the rate is 25-30 per cent.
- Girls aged 1-5 years are 50 per cent more likely to die than boys.
- One year olds fully immunized against Tuberculosis are 80 per cent and measles are 67 per cent.
- Births attended by skilled health personnel are 43 per cent (Sinha, 2007)
- India adds over 55000 babies to the population every day.

Among infant deaths, Infant Mortality Rate (IMR**)** is higher in rural areas and excessively so when the mother's age is less than 20. If the birth interval is less than two years, the IMR escalates hugely (National Family Health Survey-3). A nationwide survey has indicated that one infant dies every 15 seconds in the country. Some 4,00,000 infants die in the first 24 hours of their life. It is not a lack of resources that stands in the way of India reducing infant mortality-countries with less resource in India's neighbourhood have tackled the problem more effectively–but the absence of political will. Investment in public health facilities is clearly not enough. Increase in economic growth is meaningless when we are unable to give our infants even a chance at life (Deccan Herald, 2009). The results of the latest round of National Health Family Survey-3 (NFHS-3), conducted during 2005-06 show that not only is the nutrition and health status of children in the country poor, but also they are showing very slow signs of improvement. For instance, 46 per cent of children under three are under-weight which is an improvement of only one percentage point compared to National Family Health Survey-2 which was carried out 8 years back in 1998-99. This high proportion of under-nourished children cannot be a matter of pride in a food-surplus economy, where government is regularly mooting public health programmes to combat the situation. Despite, its vibrant programmes like Integrated Child Development Services (ICDS), Reproductive and Child Health (RCH), National Rural Health Mission (NRHM), the malnutrition among infants continues unabated. These exorbitant numbers suggest a need for improving the quality of implementation and monitoring of these programmes especially in rural areas.

Family Planning as the Principal Instrument of Infant Health and Socio-economic Progress

Population and socio-economic development are inter-related. Changes in population size and structure affect various economic and social factors relating to income, health, education and employment. Again, family planning and health are intimately related. Family planning is an input for development, an indispensable exercise in human capital formation (Gandhi, 1983). Family planning can promote women's health through the prevention of unwanted pregnancies, limiting number of births, proper spacing, timing of births and foetal health. However, more than half of India's population is in the reproductive age group and only half are using contraceptives and it may take several decades more to achieve the goal of planned families which is a necessary requirement for improving the quality of life of Indians. The current use of contraceptive is considerably higher in urban areas (64%) than in rural areas (53%) in the age group of 15-49 years (Source: NFHS-3 IIPS 2005-06). The ultimate goal of family planning programme is to increase family prosperity through small family with sufficient spacing in between two births and improved health in all areas.

Government Policies and Population

Recognizing the urgency of containing its population, the Government of India has consistently increased the budget outlay for the Health and family welfare with each Five year Plan from Rs. 6.5 million in its first five year plan to Rs. 65,000 million in its eighth five year plan (Ministry of Health and Family Welfare, 2000). To achieve the desired outcomes in the health sector, a substantially enhanced outlay for the department of Health and Family welfare has been earmarked during 11^{th} plan (2007-2012). The total outlay for 11^{th} plan is 1,20,374 crore at 2006-07 prices. This enhanced outlay is about 4 times the initial outlay for the Tenth Plan (36,378 crore). A large proportion of this amount, i.e., Rs. 89,478 crore (65.72%) is for NRHM, the flagship of Government of India. Further, the 11^{th} plan aims at reducing the total fertility rate to 2.1 and Infant Mortality rates to 28 per 1000 live births (11^{th} Five Year Plan 2007-12). In spite of the creation of vast health infrastructure network, the system is not proving effective enough to achieve the stipulated targets under the National Family Health Policy as the key grassroot functionaries have been quite ineffective on their job finds Verma and Puruwar (2000). This indicates the weakness in the management of the programme.

REVIEW OF LITERATURE

The impact of population growth on development of the national economy has provoked continuous debate. Development experts continue to sound warning signals over the progress of the country's population stabilization measures. The main concern has been about the consequences of population size and growth on economic development. Many theories on population have emerged, which still form the root of contemporary discussion. Right from Adam Smith, Malthus, Becker, Karl Marx etc., have raised concern over the growing population and its effect. In the following section, Family planning and infant health care programmes-related specific review (user and provider-centric studies) has been presented.

Fertility Determinants

A close scrutiny of the literatures related to fertility provides the glimpse of the factors influencing either directly or indirectly that determine the fertility levels in the population. In his study, Bongaarts (1978) throws an insight into two aspects of fertility determinants- socio-economic factors and intermediate variable factors. The analysis indicates that variations in four factors –marriage, contraception, lactation and induced abortion–are the primary proximate causes of fertility differences among populations. Similar view has been held by Jain and Bruce (1994) and Visaria(1999). A variety of socio-economic factors powerfully affect individual and couple's desire for children and their ability to implement their desire. These factors include levels of female education (Chandana and Dhaneshwari Sharma, 1987**),** infant and child mortality, income, education, Age Specific Female Labour Force Participation Rate (Gan, Lydia, *et.al.,*2002), employment and livelihood opportunities for women and women's empowerment ((Dreze and Sen, 2002).

Moulasha and Rao (1999), examining NFHS data find that fertility and contraceptive practices among Muslims have higher fertility than Hindus. Ramesh (2008**),** from NFHS while examining whether caste differentials in fertility and contraceptive use are caused by variations in socio-economic characteristics finds that with the improvement of socio-economic status, not only will fertility decline with a corresponding increase in the use of contraception, but also the differences in fertility and contraceptive use between caste groups will disappear**.**

In spite of increase in family planning expenditure over the years, fertility has declined very slowly and for this Srinivasan (1996), attributes two reasons-The first major reason

is the undue emphasis given on permanent methods of family planning (sterilization) in the programme from its beginning which has reduced fertility only among older women after their desired family size is achieved. The second major factor is that many of the traditional checks on fertility such as prolonged abstinence for religious or social reasons and taboos on widow remarriage, have been weakened by modernization, and marital fertility levels among younger women have been increasing since 1951. Letamo and Oucho (2002) Dwivedi (2006) Chaurasia (2004) observes, that effectiveness of contraception can be expected to increase with age because both motivation and reliance on sterilization are greater among older couples, the younger women are more likely to use family planning methods than older women both in terms of births averted and contraceptive use.

Reproductive health interventions targeted at couples demonstrate greater impact than those aimed at a single partner **(**Becker, 1996). However, Kanitkar and Kulkarni(2002), find that men do not equally share the responsibility of fertility regulation. The study by Balaiah *et.al.,* (2005) underlines the importance of intervention programmes aimed at promoting a small family norm, increasing the number of contraceptive choices available and encouraging inter-spouse communication targeting spacing methods principally.

Rao(1996), observes that family planning in India has not been identified from marketing perspective. So, by formulating a suitable marketing mix of the right products of desirable quality and affordable prices, backed by promotional activities aimed at facilitating the process of informed choice and counseling to dispel the myths or solve problems faced by users and making the product /service available at places convenient to the people, programme managers and policy makers can increase programme effectiveness and expect a greater impact.

Studies on Infant Health Care

Gertler and Gaag (1990**)** report from a cross sectional analysis for a sample of 34 countries in 1975 that on an average, a ten per cent increase in income is associated with one extra year of life expectancy, an 8.3 per cent lower infant mortality rate, a 14.2 per cent lower child mortality rate, and a 1.5 per cent lower crude birth rate. The Cebu Study Team (1992**),** estimated child health production functions for diarrhea and febrile respiratory infection, and weight with data from Cebu in Philippines for children up to 2 years old and examined the infants with exclusive breast feeding, breast feeding supplemented with non-nutritive liquids, and breast feeding with nutritive supplements and found that children in any of the breast-fed

categories weighed more than those not breast-fed. The results of the study from the National Health and Nutrition Survey (1989), conducted in Brazil strengthen the compelling case for breastfeeding by documenting its significant beneficial effects on reducing illness and improving growth among infants and young children (Senaur *et.al*., 2000)**.** Increasing exclusive breastfeeding and complementary feeding requires a behaviour change needing inputs both from services and families observe Arun Gupta (2006).

Mosley and Chen (2003) presents an approach incorporating both social and biological variables, distinguishing two sets of factors viz.,- medical and socio-economic factors to influence survival of children and have argued persuasively, that social and bio-medical approaches must be integrated. The risk of dying for neonatal and infants is higher and potentially strong predictors are education, father's occupation, age of mothers at birth, sex of the child, immunization status of the child, birth order, birth interval, delivery place, antenatal care and survival status of the previous child Howaldar *et.al*(1999), Rahman and Ali, (2007).

The literature survey on child health by Currie (2009) summarises on links between parental socio-economic status (as measured by education, income, occupation, or in some cases area of residence) and child health, and between child health and future education or labour market outcomes (income). There is strong evidence of both links, suggesting that health could play a role in the inter-generational transmission of economic status.

Malnutrition has been identified as the biggest single contributor to child mortality in developing countries. Malnutrition has been caused by poor dietary intake, infectious diseases, and a lack of appropriate care (Arnold, 2007, Rout, 2007). Birth weight is the primary measure of a baby's health in most analyses of infant health and welfare in economic research (Almond, 2005). Explaining the causes for high child malnutrition in India, compared to low income countries like Sub-Saharan or Bangladesh, Shivakumar (2007**),** observes low birth weight, poor health and nutritional status of women, limited reach of public health services and messages, poor child care knowledge, limited opportunities available to women for education, a stress of repeated pregnancies are the causes of malnutrition. The dietary inadequacy, during pregnancy coupled with malnutrition, poor environment, sanitation and inadequate medical service make the child more vulnerable to fall into the vicious cycle of poverty-malnutrition- disease- poverty and ill health (Gupta *et.al*.1998, Gangadharan 2006**,** Working Group on Children under Six 2007).

Service Providers Vis-a-vis Family Planning and Infant Health Care

The study conducted by Economic and Social Commission for Asia and Pacific(1990) focused on lack of knowledge among grassroot family planning workers in China, India, Phillipines, Srilanka and Vietnam and analysis showed that 'method mixes' in these countries were limited and in fact, couples should be left, as far as possible, to choose their own contraceptives finds Turner(1990). The government-sponsored family planning programme is able to satisfy only a small proportion of the users, whereas a large proportion is disappointed with the services. The findings from the study on quality of family planning service by Gangopadhyaya and Das (1997) indicate that not only are the users dissatisfied with the delivery of service but also the after-care as many suffer from some side effect, health problem, psychological fear and sometimes from the failure of contraceptive method which results in pregnancy and often an abortion. Verma and Puruwar (2000), discussing the role of service providers at the grass root level identifies some of the key variables affecting their performance and attempts to assess the applicability of the sales management model and social marketing strategies for developing health manpower and improving their effectiveness. Though, over 70 per cent of the rural population is aware of the existence of Primary Health Centres(PHC) and Sub-Centre (SC), only a third of them utilize the same. They are dissatisfied with the quality of inputs and services finds Srinivasan and Durgaaprasad (2000).

Only two methods are promoted in the study area of South Delhi- Sterilisation and IUD. Highlighting the need for community based services Sultan *et.al* (2002), finds that use of reversible modern methods of contraception is significantly higher in localities having good access to literate, female community based workers than in localities with little or no access. Rameshan and Singh (2004), while evaluating the services of PHCs in Lucknow finds that PHCs are deficient in many respects in the perception of customers and community members and that the doctors are unable to redress adequately and delivery of quality care service is critical to family planning acceptance and continuance. Trust, rapport, and confidence between client and health outreach worker were critical factors in contraceptive adoption and especially, continued use of reversible contraceptive observes Balakrishnan Rajiv (2004), after reviewing the literatures on targets and quality of care from various studies conducted at Bangladesh, Delhi, Uttarpradesh. Sinha *et.al.* (2006), provides evidences of the utilisation of service being high with home visits. In addition to socio-economic factors lack of motivating force, quality of care and

accessibility to services has also been found as an important factor determining the utilization of health services (Ram and Manas 2006).

Ashokan (2006), in his study points out to the wide gaps and inefficiency in health care services in rural areas and suggests for inter-sectoral co-ordination within the rural health network by integrating activities and the primary health centres, non-government organizations and the Integrated Child Development Services to meet the health needs of women and children. The health infrastructure in rural areas is inadequately staffed and poorly equipped and needs to be strengthened reports Sood (2006). A successful programme is often the result of patients receiving adequate information on the various contraceptive methods available and also on the provision of good quality services (Umranikar and Sameer, 2008).

STATEMENT OF THE RESEARCH PROBLEM

The world today is pathologically over-populated, and one of the menaces before progress is the absence of a scientific population perspective and a global family planning project (Iyer, 2008). The size of the Indian population has been a subject of much concern for quite some time now - both inside and outside it. Given the size of the country and its already large population, the absolute numbers of additions to the Indian population per year are often cited as dreadful evidence of alarming problems in the making**.** The Family Welfare Programme in India has experienced significant growth and adaptation over the past half century since its inception in 1951. During this period, financial investments in the programme have substantially increased and service delivery points have significantly expanded. Services administered through the programme have been broadened to include immunization, pregnancy, delivery and postpartum care, and preventive and curative health care. The range of contraceptive products delivered through the programme has widened. Multiple stakeholders, including the private sector and non-governmental sector, have been engaged in providing contraceptive services. Of late, the programme has been integrated with the broader Reproductive and Child Health Programme. The couple protection rate has quadrupled from 10 per cent in 1971 to 54 per cent in 2007-08 (DLHS 2008). Health standards in India have considerably improved since independence. Longevity has more than doubled, Infant Mortality Rate has fallen, and Poliomyelitis is nearing elimination. India has made deeper inroads into rural areas with focused schemes like National Rural Health Mission.

Notwithstanding these achievements, several issues continue to daunt the programme and many goals remain under-achieved: a significant proportion of pregnancies continue to be unplanned; the contraceptive needs of millions of women remain unmet; several sub-population groups including adolescents and men continue to be neglected and under-served; and contraceptive choice remains conspicuous by its absence, as is quality of care within the programme. The health services that India provides to her people continue to be far from adequate, and compares rather poorly with even Asian neighbours like Srilanka, Thailand and China. Considerable work has been done in India in the field of family planning, but clearly only the fringe of the problem has so far been touched. In this context, after a thorough and careful consideration of all the factors involved, the Government of India proposed to bring down the growth rate of population in the country to 1.4 per cent by 1984. But, in absolute terms, the growth rate of India's population, despite some decline, is now around 1.6 per cent per year. The demographic projections suggest that around the middle of the present century, India will overtake China, and India will then become the most populous country in the world (Dreze and Sen, 2002). The very increase in population makes economic development slow and more difficult of achievement. The time factor is so pressing, and the population growth so formidable, that we have to get out of vicious circle through a direct assault upon this problem as a national commitment (NPP: A Statement of the Government of India, 1976). India is the first country to adopt family planning, but today India is second only to china as far as population is concerned and second only to Bangladesh as far as child malnutrition is concerned (Sen, 2003).

Three rounds of the National Family Health Survey were conducted during 1995-96, 98-99 and 2005-06. Even the latest round of National Family Health Survey 3 (NFHS-3) does not paint an optimistic picture of the health indices particularly of maternal and child health. According NFHS-3, the vaccination coverage has come down from 60 per cent during NFHS-2 to 55 per cent in the state (The Hindu, 2008). The state of health of children is worst in the whole world. Deaths account annually for 2.5 million. Half the country's children are malnourished. Human resource considered to be the best resource will prove to be a curse, if there is an abnormal expansion in terms of quantity and quality.

This makes it essential that the problem of population and population policies since independence should be examined in depth and it is high time to reassess the gravity of the

problem and find new strategies to tackle it. The rural segment contributing sizably to the population problems is found to be less receptive. There is a growing realization that the family planning programmes pursued do not guarantee a drop in birth rates, unless there is simultaneous change in the area of women's education, health, employment and several other aspects of the quality of life (Bora, 2000). In the light of these observations, there is a need for review of the family planning programmes and infant health care programmes implemented in India in general and rural Dakshina Kannada District in particular, and the role of service providers in the process of reaching the message of family welfare programmes including infant health care programmes to thousands of couples spread over three hundred fifty six villages of Dakshina Kannada District. While analyzing these programmes, a new light may be thrown open on issues like views and perceptions on fertility dynamics and contraceptive use.

Number of studies have been undertaken to review in quantitative terms the number of people living in a country at a particular time, the rate at which they are growing and the composition and distribution of population. These studies have attempted to analyse the problem in a demographic perspective and they have given only a peripheral touch on different dimensions of population growth. In all these studies relatively little attention has been given to examine the family planning and infant health care programmes pursued to improve the quality of life and understand the socio-economic impediments in the adoption process. Besides, immunisation and nutritional levels need a closer scrutiny to understand the dynamics of infant health. A comprehensive study of the issues, that is, family planning and infant health care has not been addressed by these studies. In fact, these two issues are just like the two sides of a same coin. Again, the studies related to service providers have tried to identify and relate the causes of low effectiveness of health personnel and of the health delivery system as a whole with one or two variables at a time. Such studies are, no doubt, of much importance, but they are not in a position to draw a holistic picture of the prevailing situation on account of their narrow perspective and therefore, unable to provide a reliable strategy to overcome difficulties and problems in the way of effective delivery of health care services. Hence, a study seeking to develop a comprehensive model of variables influencing the effective and efficient delivery of health and family welfare services to the target population is needed to provide a holistic and integrated approach.

When one looks at the data on contraceptive users by rural-urban residence, it shows that sterilisations are more prevalent in rural areas in Karnataka. Whereas in urban areas, more couples use spacing methods. Moreover, there are significant disparities in the rural-urban contraceptive adoption process. National level prescriptions have no meaning unless they are attuned to state and district-level conditions. It is in this backdrop, a study is essential to evaluate the existing family planning and infant health care programmes, understand the progress made and strategies adopted in rural Dakshina Kannada. Accordingly, efforts can be made to design programmes and strategies appropriate to the diverse religious, social, economic and cultural characteristics of the people of the country based on the study in rural Dakshina Kannada which is a representative rural market.

The rural district of Dakshina Kannada has 356 villages, spread in 5 taluks of Sullia, Puttur, Belthangady, Bantwal and Mangalore. Of the total population of 18,97,730 nearly 61.57 per cent, i.e., 11,68,428 (2001 census) live in rural areas. Micro-level study can provide better understanding of fertility decision making and identification of factors and situations that influence the process of adoption both in terms of context and content. Earlier studies have failed to address the major inhibitions at the micro-level and provide concrete policies for the diverse population. Considerable work remains in investigating the personal, social, economic and psychological factors motivating the people to adopt / not to adopt family planning and infant health care programmes in the district and the role of service providers in reaching these programmes to the ultimate client. Individual researchers interested in fertility-related behaviour must use information they have about birth planning policy at the provincial level, or represent birth planning programmes indirectly through place of residence or type of household registration (Short *et.al.,* 2000). Further, no studies have come forth from the marketing perspective by evaluating these programmes to combat population growth and improvise quality of health for both mother and child. Therefore, there exists a strong need to develop conceptually sound and operationally feasible techniques to market these social welfare programmes, and bring every couple under one or the other type of family planning method with economically and socially acceptable family structure/norm.

Hence, the study is taken up with a view to empirically understanding the dynamics of adopters and non-adopters of family planning and infant health care programmes in rural areas. It is essential to understand the major inhibitions in the process of adoption of family

planning. The problem of rural population is a complex one. It calls for a sincere attempt without any political jargon attached to it. The application of social marketing principles in sensitising the 'family planning and infant health care programmes' will go a long way in a diverse socio-economic, cultural, political setup. In this dimension, studies have not yet come forth. Thus, there is a dire need for the comprehensive study that deals with issues, problems and prospects in the delivery and utilization of family welfare programmes in this under-researched topic in rural markets of Dakshina Kannada District. Indeed, this study would throw a fresh light on the entire dynamics of family planning and infant health care programmes in rural areas to identify and manage the deficiencies contained in such interventions. The study proposes to develop a suitable 'model for family planning and infant health care programmes' applicable for the whole country on the basis of its findings.

OBJECTIVES OF THE STUDY

The central purpose of this research study is "to examine the trends, status, key determinants and social marketing implications pertaining to the family planning and infant health care programmes in rural areas of Dakshina Kannada(D.K) District of Karnataka'. The study is undertaken with the following specific objectives:

(1) to describe the dynamics and existing scenario of family planning and infant health care programmes in India in general and Dakshina Kannada district in particular;

(2) to ascertain and report on the functioning of service providers (Primary Health Centres /Community Health Centres) in rural markets of D.K district;

(3) to project and report on the socio-economic and demographic profiles of the respondents;

(4) to identify and analyse the views, perceptions and key determinants of adopting family planning programmes;

(5) to ascertain and discuss the views, perceptions and key determinants of availing of infant health care programmes; and

(6) to raise major social and marketing implications of family planning and infant health care programmes in the light of results and discussions of this study.

RESEARCH HYPOTHESES

The researcher formulated the following hypotheses based on an extensive review of literature pertaining to the field of study and interviews conducted with the health officials serving in different health departments in Dakshina Kannada District.

RH1: The association between female education and fertility is stronger than that between male education and fertility.

RH2: There is difference across different religions with regard to number of children.

RH3: There is a significant positive relationship between awareness and practice of family planning.

RH4: Rural population prefers permanent method of family planning rather than temporary method of family planning.

RH5: People prefer public health institutions to private health centres for adoption of family planning

RH6: People prefer public health institutions to private health institutions for infant health care services.

RH 7: Family planning adoption and infant health status are positively correlated.

RESEARCH METHODOLOGY

The present survey-based empirical study is partly exploratory and partly explanatory in nature. The service providers and the users of services of family planning and infant health belonging to the rural area of Dakshina Kannada District of Karnataka constituted the sampling units for this empirical study. The study is based predominantly on primary data and information.

For the conceptual and theoretical framework of the subject under study, various books, refereed journals, periodicals, census reports, NFHS Reports, DLHS Reports, Economic Survey Reports, Five Year Plan reports, WHO reports, UNDP reports on population and development indicators etc. were consulted. Many documents and records have been reviewed during the preparation of this thesis. These include records/ statistical reports of the implementation of the family planning programme at various levels in the district-Primary Health Centre, Taluk Health Office, District Health Office, Women and Child Welfare Department, NRHM office, District Training Centre, etc., related to this study, as well as theoretical materials.

Two sets of pre-tested structured questionnaire- one each for providers of service and users of service were prepared with the help of extensive review of literature and insights obtained from pilot study. The Dakshina Kannada District of Karnataka consists of five Taluks- Mangalore, Bantwal, Sullia, Puttur, and Belthangady with a rural population of 11,68,428 including 5,93,771 Females (2001 Census). There are 71 Primary Health Centres in the District. Disproportionate Stratified Simple Random Sampling technique was used to select the eligible couples from 71 Primary Health Centres in the rural parts of Dakshina Kannada District. Respondents were –Service providers, clients and non-users.

- Providers of Service include Medical Officers, Auxiliary Nurse Midwives (ANMs)/Male Health Worker (MHWs)/Lady Health Visitor (LHVs)/Counsellor serving in the Primary Health Centres/ Sub-centres (service providers). Since Medical Officers and ANMs were the direct links between the end-users and the system, only they were contacted and interviewed for the purpose.
- Clients were adopters of family planning/Infant health care programmes.
- Non-users were the non-adopters of family planning / Infant health care programme.

The eligible couple list was collected from the Primary Health Centre of the rural area concerned and 852 eligible couples were interviewed through a field survey for obtaining the necessary primary data and information. The sample size is calculated based on the formula n= N/ 1+Ne2 where n= sample size required, N= population size, e= level of precision usually between 1 per cent and 10 per cent. For the present study, precision level is taken as 4 per cent and obtained sample size is 625. So, investigator has taken 852 sample size. Using disproportionate stratified random sampling in each PHC, 12 eligible couples were included in the sample. The age group of the respondent was between 18-45 years. This range was chosen since this is the most fertile period of conception. Care was taken in selecting the household respondents having at least one child below the age of 4 years so that adoptions of family planning and to availing of infant health care services are known and fresh in the minds. As people in rural areas of Dakshina Kannada District speak mainly in Kannada or Tulu language, interview schedule was organised in these languages. The questionnaire to clients/non-clients contained three parts- Part-A contained personal and familial background information about the respondents. Part-B contained information on family planning programmes related to adoption/non-adoption, programmes, methods, benefits derived, etc. The third part (Part-C) of the questionnaire was devoted for the

infant health care programmes, beneficiaries of the programme, etc. The relevant primary data and information were obtained by personally administering comprehensive, structured and pre-tested questionnaire to 852 clients using family planning/infant health care services in the rural area by employing Disproportionate Stratified Simple Random Sampling technique during May 2009 –April 2010.

The list of the Primary Health Centres, Community Health Centre and Sub-centre was collected from the District Health Office, Mangalore. The service providers in all 71 PHCs were personally contacted and administered with the questionnaire. The information gathered through this was related to their service conditions, means of propagation of services and their role in this process of dissemination of the social marketing programme.

Notes were jotted down during each interview, not only to record the responses but also to gain insights and reflections from the interviews which were useful in data analysis later, also about the environment of each interview, e.g., presence of other family members or neighbours, feelings and impressions throughout the fieldwork. These notes became part of the data to be included during the analysis. In addition, interviews with the District Medical Officer, Reproductive and Child Health Officer, NRHM Officer, District Training Officer, District Sterilisation Officer provided directions to understand the perceptions, views and dynamics of policies and programmes of the government in tackling the major issue facing the country.

The researcher relied on the statistical package for social scientists (SPSS-Volume 13) for the purpose of processing and analyzing the survey data. The important statistical tools and techniques like Percentage, Mean, Median, Standard Deviation, Chi-square Tests, Binomial Tests, Factor Analysis and Discriminant Analysis were used to analyse and interpret the data and test the hypotheses.

The assessment of satisfaction level was done based on the following category:

0- 20%	Totally disagree
21 - 40%	Disagree
41 - 60%	Neither agree nor disagree
61 - 80%	Agree
81 - 100%	Totally agree

To project and highlight the significant findings, appropriate charts and graphs were also used.

SCOPE AND LIMITATIONS OF THE STUDY

The findings from the study can be applied to the marketing of other social products say, literacy, the prevention of disease, community development and environmental protection. The present research work on 'Marketing of family planning and infant health care programmes in rural areas' is carried out in the rural areas of Dakshina Kannada (DK) District only. Being a micro study, it suffers from certain inherent deficiencies. First, the geographic area concerning this empirical study was confined only to one district in Karnataka. Second, the study is confined to rural area only. Third, the present study focused exclusively on the services of the government health agency that is provided by Primary Health Centres. This is done with the intention of making an in-depth study of the role of service providers in the implementation of family planning and infant health care programmes in D.K district. Again, only medical officers and health assistants including ANMs, LHVs and MHWs were considered for the purpose of this study.

Further, the findings and inferences of this micro study cannot be generalized because of diverse socio-economic contexts existing in rural area which are not applicable to other districts or States. Nevertheless, the major findings and conclusions of this survey-based empirical study throw sufficient light on the views and perceptions of the family planning adopters and non-adopters in the rural area of the district. The study emphasizes the role of service providers in empowering the people with the necessary information on various policies and programmes of the government on both the crucial issues pertaining to family planning and infant health care. Also, the study focuses on the ways and means to market these programmes through social marketing principles and enhancing the effective implementation of strategies for the said purpose. This, in fact, is the need of the hour to combat population issues. The study indeed, contributes to the existing literature in this under-researched area of investigation.

MAJOR FINDINGS OF THE STUDY

Key Findings on Services Providers

- There are 71 PHCs in Dakshina Kannada District providing the family planning, health care and referral services. A significant majority of the service providers (76%) reported about the inadequacy of staff, infrastructure facilities and clinical equipments in the health centres. Again more than one-half of the respondents (57.7%) reported about the non-availability of life

saving equipment like oxygen. However, vast majority of the (93%) service providers reported about the regular availability of contraceptives in the PHCs. In all the PHCs services of insertion of Intra-Uterine Device (IUD) is regularly done. Contraceptive pills are provided and condoms are supplied to the clients.

- For family planning and infant health care, people have more inclination towards the private health care providers in spite of a vast network of public health services. About three-fourth of the health personnel (74.6 per cent) reported that they visited the clients regularly and they assessed the requirements for family planning methods and immunization by personally visiting the houses reported 57.7 per cent service providers.

- Inter-personal communication or word of mouth formed the major method of convincing the clients on family planning and infant health care opined vast majority of the service providers (97.2 %).

- The target set on family planning adoption is achieved only in 52 per cent PHCs. Citing the reasons for non-achievement of targets by the non-achievers, more than sixty per cent (64.7%) reported that people are not convinced about the need for 'small family' followed by 44.1 per cent of the service providers reporting about high targets set for them to achieve. This trend suggests that the mode of convincing is quite inadequate in meeting the requirements of rural population.

- More than 60 per cent service providers stated that training is regularly imparted to them. Little over seventy percent of the service providers (71.8 percent) have rated evaluation mechanism to be excellent or very good. About half of the service providers were not happy about the motivation given to them. However, highly significant service providers are satisfied with their job (72%).

- For adoption of small family norm 57.7 per cent service providers opine in favour of voluntary measures. More than three-fourth service providers (78.9 per cent) opined that media support will definitely increase the utilization of infant and family planning services. Vast majority of the service providers (91.5 per cent) agree for the extension of literacy base of the rural folks for early implementation of small family norm and adoption of proper health care of children.

Family Planning Adopters/Non Adopters: A Background Profile

- Significantly higher portion of the respondents (88.5%) is relatively young in the age group of less than 35 years. Majority of the wives were illiterate (12.4%) compared to husbands (6.0%). The Chi-square test revealed that the association between female education and number of children was stronger than that between male education and number of children (RH1is proved)**.**

- Among the respondents more than one-half of men (54.5 per cent) were daily wage labourers (coolie) and nearly 60 per cent of women were into beedi rolling for their livelihood. Though, significantly higher households (53.5%) had dual-earner status, annual income of a sizeable proportion of the family (60%) was below Rs.12000. More than half of the respondents (57.3%) were Hindus, 35.6 per cent were Muslims, 5.9 were Christians and others formed just 1.3 per cent. It is found that there is no significant association between the numbers of children among different religious groups (RH2 is refuted).

- Significantly higher percentages of the respondents (77.7%) were living in 'own tiled houses'. Almost an equal per cent of respondents were into nuclear and extended families. Very small per cent (7 %) were in a joint family system.

- Out of 852 families under review, they had 2240 children (1158 male and 1082 females) accounting for a mean average of 2.6244 children per family.

- With respect to the availability of amenities and facilities in households, vast majority (96.4%) had either well water or piped water for drinking/domestic purposes. Toilet facility and electricity facility is absent in 10 per cent households. T.V is absent among 42 per cent rural households, radio is absent among 64.8 per cent households, newspaper is not read/subscribed by 92.4 per cent, computer is not available in 99 per cent cases, while Telephone is not available among 31.9 per cent households.

Family Planning: Views and Perceptions

- Nearly 60 per cent respondents view that the ideal number of children for a family is two.

- Though, higher proportion of respondents (95%) were aware of all the methods of family planning, advanced methods like implants and injections were not known to very significant

majority. Again, significantly higher proportions of respondents have not adopted (56.2%) family planning in spite of having awareness. There exists huge gap between awareness and practice (RH3 is refuted).

- Among the adopters of family planning, vast majority of women have opted for permanent method (81.2%) to temporary method (18.8%) of family planning (RH4 is proved).
- Education status of wives is significantly associated with the adoption of family planning and significant proportion of Hindu respondents has adopted family planning than others.
- Among the non-adopters, desire for another male or female child was the major reason cited by nearly half of the respondents (49.7%).
- The principal source of information for both adopters and non-adopters is health officials.
- Among 41.3 per cent of non-adopters there was opposition in the family and so have not adopted and principally they had opposition from their spouse (husband), followed by their mothers-in-law (21.2%) and mothers accounting for 11 per cent. Even for the adopters of family planning, 39.6 per cent respondents had opposition from their husbands followed by mother-in-law (30.2%).
- More than 60 per cent of family planning adopters have adopted it within 5- 10 years of their married life. Significantly higher portion (77.5%) of the respondents preferred to go to public health centre for adoption of family planning (RH6 is proved).
- In spite, of awareness of government programmes, there existed huge gap between adoption of family planning and benefits derived by clients in the region. About 70 per cent respondents opined that all the government-sponsored programmes reach the target population. Highly significant portion of the respondents (82%) opine in favour of changing the behaviour of people through social marketing principles in the adoption of small family norm. While 18.5 per cent are in favour of compulsory measure for the implementation of 'small family' norm.
- The most popular media for ads on family planning are Television (71%) followed by radio with 23 per cent. An overwhelming majority of respondents (98.9%) suggested for ads on family planning projected through star embassies as in commercial ads to create better impact.

- It is found from the discriminant analysis that younger population is not showing positive response for adoption of family planning. Low education standard of both husband and wife, lower occupation, low income, joint and extended families, poor utilisation of mass media have emerged as the hurdles in the decision making process for adoption of family planning.

Infant Health Care: Key Determinants

- Significantly greater proportion of expecting mothers have given prominence to Antenatal check-up (98%), intake of nutritious food (98%) and required doses of tetanus and iron and folic acid tablets (100%).

- Most of the respondents preferred private maternity homes for the delivery of children to public health centres, in spite of the fact that they charge heavily on their patients. Above all, institutional deliveries were given prominence by the rural people of DK district.

- A vast majority of the respondents (94%) stated that their child was by choice and remaining 6 per cent stated that their child was by chance, unplanned and unintended.

- With regard to the health status of children born, 76.6 per cent reported that they had delivered healthy child, while a little over 23 per cent deliveries were not healthy in the region. There is highly significant association between health status of infants and annual income of mother and also the annual income of family.

- The association between health status of infants and the adoption of family planning is statistically significant (RH5 is proved)**.** Also there is highly significant association between the health status of infant and the educational status of mother.

- It is observed that the association between state of health of the infants and mother's age at delivery was highly significant. Higher the age of mother during delivery the lower the health problem of child.

- With regard to the infant health care procedures and practice, almost universal awareness was there among mothers. Mother was the major source of information (80.8%) followed by the health personnel (20.2%) and the mother-in-law (6.2%).

- In the study area, 98.5 per cent of babies were breastfed. A little over 65 per cent respondent has not supplemented anything more than the breast milk during the first six months of their delivery.

- Only 30 per cent respondents were going for regular health check up of their children. A significant majority of the respondents (98.7%) have followed the immunization schedule properly. With regard to the place of immunization undertaken, a large majority (92.5%) stated that they availed of this service in public health institution, while only 7.5 per cent have gone into private health institutions. A little over 96 per cent respondent reported that the health officials provided them information about immunisation schedule each time.

- Awareness for all the government-mooted infant health care programmes ranged from 62 to 99 per cent. But, except for Supplementary Nutrition Programme and immunisation programmes, the beneficiaries from these schemes and programmes were negligible.

- Public health centres were preferred by more than one-half of respondents (51.5%), private hospitals were preferred by 36.3 per cent and local doctors were preferred by 18.9 per cent respondents. Thus, significantly greater proportion of respondents prefer Public health institution for infant health care services (RH7 is proved). Nearly cent per cent respondents suggested that public health centres were absolutely necessary in the rural areas.

- About 85 per cent of the respondents were aware of the ads on infant health care programmes being publicised in the mass media. About 86 per cent reported that mass media created a better impact in the minds of rural people about family planning and infant health. Effective theme-oriented serials inclusive of emotional issues on family planning and infant health care programmes need to be depicted as observed by more than 70 per cent of the respondents for the popularization of programmes.

- Dual-earning status, mass media, irregular health check up, cow milk, tinned milk, supplementary feed, mother's meeting, *prasuti araike* programme have negative impact on child health in the region. If these identified determinants are addressed properly, infant health will substantially improve in the rural parts of the district. Education, empowerment, proper

knowledge dissemination, creation of awareness through service providers and mass media will have a long lasting effect in promoting infant health care in rural areas.

CHAPTER SCHEME

The study is organized in 9 chapters as detailed below:

Chapter 1: "INTRODUCTION" discusses the concepts, significance of the study, objectives of study, hypotheses, research methodology, scope and limitation, and chapter scheme.

Chapter2: "THEORETICAL FRAMEWORK" provides the theoretical background supporting the present study and the theoretical models.

Chapter 3: "REVIEW OF LITERATURE" provides a critical review of previous studies pertaining to different dimensions on family planning and infant health care programmes.

Chapter 4: "AN OVERVIEW OF FAMILY PLANNING AND INFANT HEALTH CARE PROGRAMMES" intends to provide a bird's eye view of population policies from international perspective in general and the Indian context in particular and under different plan period. The chapter also provides a cursory glance at the various family planning and infant health care programmes of the Government and the progress and beneficiaries of these schemes in Dakshina Kannada District.

Chapter5: "PROVISION OF PRIMARY HEALTH CARE SERVICE: SERVICE PROVIDER'S PERSPECTIVE" focuses on the views and the role of service providers in family planning and infant health care programmes and evaluates the functioning of primary health centres in rural markets of D.K district.

Chapter 6: "PROFILE OF RESPONDENTS" provides the socio-economic and demographic profiles of the adopters of family planning/infant health care programmes (clients) in the rural market of Dakshina Kannada.

Chapter 7: "FAMILY PLANNING PROGRAMMES: Views, Perceptions and Determinants" analyses and evaluates respondent's views and perceptions about family planning. The chapter identifies the key determinants for the adoption of family planning.

Chapter 8: "INFANT HEALTH CARE PROGRAMMES: Views, Perceptions and Determinants" projects and discusses the views, perceptions and key

determinants of availing and not availing infant health care programmes on the basis of the study undertaken.

Chapter 9: **"SUMMARY AND CONCLUSION**" throws light on the major social and marketing implications on family planning and infant health care in rural areas along with the directions for further research on the basis of results and discussions of this study.

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